Name:

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Geometry, Period

Due Date: Tue, 2 Sep 2014

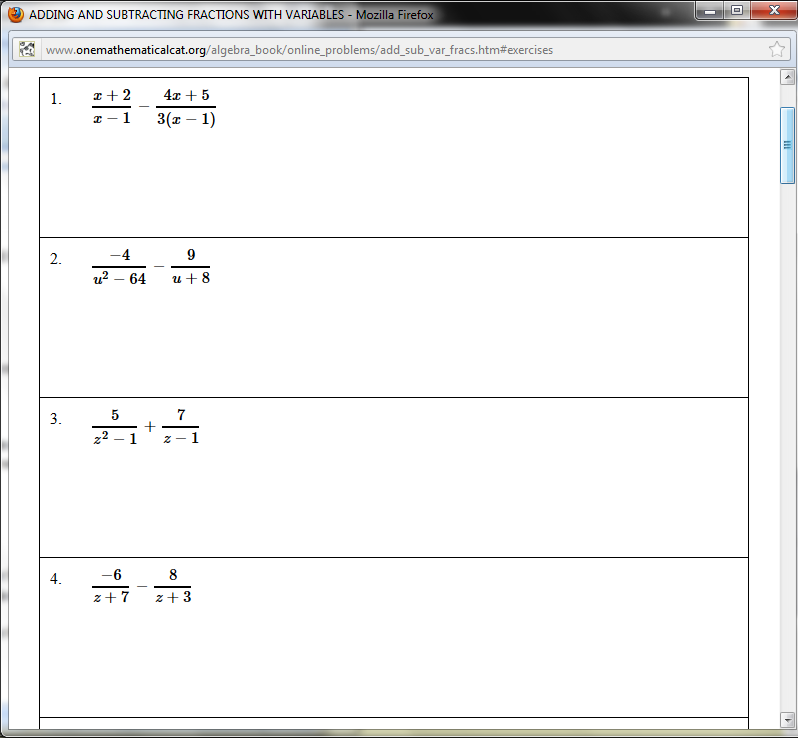
**Geometry**

**Homework**



1. **Fractions with Variables.**

Combine into a single fraction. Leave the denominator in factored form.



*(Can you factor out ? Here’s a hint: think of it as and see if you can put that into the form (z + \_\_\_ )(z - \_\_\_ ).*

*(hint: factors out to ! Since you have u+8 on the right side already, you should multiply the quantity on the right by .*

*(hint: now combine like terms)*

=

5. Simplify

*Hint: start by multiplying  
both sides (top & bottom)  
by .*

1. **Word Problems: Conversion & Changing the Subject**
2. The formula  converts *x* feet to *y* inches. Rewrite the formula to convert *y* inches to *x* feet.
3. The cost of a taxi ride is given bywhere *r* is the rate per mile, *d* is the trip distance in miles, and *a* is the flag-drop fee (an automatic charge created when the meter is started). Solve the equation for the mileage rate *r*.
4. A group is going on a boat tour. The cost, in dollars, of the tour ~~for groups larger than 25~~ is given by the equation where *n* is the number of people in the group. **🡬*(Irrelevant info! Ignore this!)***

🡬 ***(This is what you have to deal with!*** *You don’t even have to read the problem to solve this!)*

3-1. Rewrite the equation to calculate how many people are in the group. In other words, **solve for n**.

3-2. If the cost of the tour is $600, how many are in the group? *(Hint: use the equation you just created in 3-1 and plug $600 in for the cost,* ***C****)*

1. A homeowner is installing tiling and trim around the kitchen floor. The total cost, in dollars, is given by the equationwhere *t* is the number of cartons of tiles and *s* is the number of cartons of trim.
   1. If the homeowner wants to determine how many carts of tiles are needed, what equation could she use?
   2. If the total cost (C) is $284.30, how would this equation be written?
   3. If this total cost included 2 cartons of trim, how many cartons of tiles were purchased? *(Hint: you can use the equation you wrote in 4-1 & 4-2, or you can start fresh by plugging in $284.30 for C an 2 for t:*

Bonus! Whose picture is on the front of this homework?

Who is he?

How might this relate to a math class?